

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: USA (Department of Agriculture Forest Service)
c/o Thor Burbach
26 Fort Missoula Rd
Missoula MT 59804

USDI Bureau of Land Management
c/o Cory Meier
106 North Parkmont
Butte MT 59701

2. Type of action: Application to Change a Water Right Additional Stock Tanks
3. Water source name: Little Boulder River, North Fork
4. Location affected by project: S2 T5N R5W, Jefferson County
S3 T5N R5W, Jefferson County
S1 T5N R5W, Jefferson County
S31 T6N R4W, Jefferson County
S36, T6N, R5W, Jefferson County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to add a point of diversion and four additional places of use for Statement of Claim No. 41E 54725-00. The applicant intends to split the use of this water right between stock watering direct from source and a pump and stock tank system. Trough 1 is located by the main distribution tank in the SESESW Sec 36 T6N R5W. Trough 2 is located in the SESESE Sec 36 T6N R5W; Trough 3 is located in the E½E½NESE Sec 1 T5N R5W. Both Trough 2 and Trough 3 are on Forest Service land close to the border with BLM property. Trough 4 is located on BLM property in the S½SWSE Sec 31 T6N R4W. The pump system is intended to move a portion of the historic stock use off stream to less vulnerable parts of the allotment to reduce riparian impacts of stock grazing at the source and better utilize upland grazing areas. The source for the current and proposed point of diversion is the North Fork of the Little Boulder River in Jefferson County. The three direct from source points of diversion will be retained as historically used to serve the remaining stock.

The DNRC shall issue a change authorization if an applicant proves the criteria in 85-2-402 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

Montana Department of Environmental Quality (MDEQ)
Montana Natural Heritage Program
Montana Department of Fish Wildlife & Parks

TMDL Information
Endangered-Threatened Species
Dewatered Stream Information

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

Determination: No Impact

The North Fork of the Little Boulder River is not on DFWP list of periodically dewatered streams. There will be no increase in use from this proposed change.

Water quality - *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Determination: No Impact

The North Fork of the Little Boulder River is not listed as water quality impaired or threatened by DEQ. There should be no change in water quality due to this change.

Groundwater - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

Determination: No Impact

The change involves surface water of the Little Boulder River, North Fork

DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

Determination: No Impact

The applicant proposes diverting 2.037 GPM for 45 days to a 15,000 gallon storage tank located in the SESESW Sec 36 T6N R5W, in Jefferson County, Montana. Two distribution pipelines connected to the storage tank deliver water to four 1,100 gallon troughs via 14,540 lineal feet of 1.5 inch diameter plastic pipe.

At the point of diversion, located in the SESE Sec 2, T5N, R5W, the applicant proposes using a Grundfos 10S30-34, 3 HP, 230 Volt submerged pump, model number CB30412MC, with a 3HP Franklin Motor. The pump performance curve indicates the pump has the capability to pump 6 GPM of water at a pressure of 780 feet of head or 338 PSI. The pipeline from the division point to the storage tank (Line A) has an elevation gain of 745.94 FT. The distance along Line A from the pump to the storage tank is 6,595.47 LF. The head loss through a 1.5 inch diameter plastic pipe over a distance of 6,595.47 LF is calculated to be approximately 66 feet of head or 20 PSI. To accommodate the high pressures needed to compensate for the elevation gain, Line A is constructed of 2,275 LF of 1.5 inch diameter polyethylene pipe and 4,320 Linear Feet of 1.5 inch diameter schedule 80 PVC pipe.

The calculated total pressure required to convey water from the point of diversion to the storage tank is 812 feet of head or 352 PSI. The pump performance curve indicates the proposed operating pressure is higher than the optimum operating pressure for the Grundfos 10S30-34, 3 HP pump. The pump curve does indicate the pump can produce the proposed flow rate of 2.037 GPM at the calculated pressures, but operating at this pressure and flow rate is outside of the manufacturer specified operating conditions for this model pump.

Water is distributed from the 15,000 gallon storage tank to four, 1,100 gallon troughs through a system of gravity driven supply pipelines. On the map provided by the applicant, Trough #1 is located adjacent to the storage tank in the SESESW of Sec 36 T6N R5W. Water is supplied to Trough #2, located in the SESESE of Sec 36 T6N R5W, and Trough #4, located in the S½SWSE of Sec 31 T6N R4W, by the pipeline labeled Line B. The application materials indicate Line B has an overall length of 7,756.33 LF and an elevation drop of 769.10 FT. To accommodate the high pressures due to the elevation drop, Line B is constructed of 2,600 LF of 1.5 inch diameter polyethylene pipe and 5,157 LF of 1.5 inch diameter schedule 80 PVC pipe.

Water is supplied to Trough #3, located in the E½E½NESE Sec 1 T5N R5W, by the pipeline labeled Line C. The application materials indicate Line C has an overall length of 6,785.39 LF and an elevation drop of 443.39 FT. To accommodate the high pressures due to the elevation drop, Line C is constructed of 3,956 LF of 1.5 inch diameter polyethylene pipe and 2,830 LF of 1.5 inch diameter schedule 80 PVC pipe.

The point of diversion, storage tank, and Trough #1 are located on U.S. Forest Service (USFS) property. Trough #2 and Trough #3 are located on USFS property adjacent to the border with Bureau of Land Management (BLM) property. Trough #4 is located on BLM property.

The pump is already in place. Changing the location of the point of diversion to troughs off stream will not affect channels, flows, barriers, dams, or well constructions. This change was intended to improve riparian areas by moving 80% of the cattle off stream to troughs set up in less vulnerable areas.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."

Determination: No Impact

The Montana Natural Heritage Program identified the following species of concern within the project area: Clark's Nutcracker, Veery, Cassin's Finch, Evening Grosbeak, Westslope Cutthroat Trout, Hoary Bat, and Wolverine. Moving 80% of stock direct from source to stock tanks should not adversely impact any of the species of concern within this project area.

Wetlands - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.

Determination: No Impact

Montana Natural Heritage Program identifies the point of diversion as falling within Freshwater Scrub-Shrub Wetland. The proposed change is intended to move 80% of the cattle off the source to reduce riparian impacts from stock grazing. The pump is intended to move the bulk of the use off the stream and disperse it to less vulnerable parts of the allotment.

Ponds - For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

Determination: No Impact

This project does not involve any ponds.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.

Determination: No Impact

The trough locations are comprised of Sawbuck-Catgulch, Catgulch-Baxton complex, Baxton-Connieo, Lumpgulch, boulder-rock outcrop-Elmark, boulder complex and Ambrant-Rochester families. There is very low likelihood of soil degradation, alteration of stability or moisture content, or saline seep due to the proposed use of water.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.

Determination: No Impact

The project area is located on U.S. Forest Service, and Bureau of Land Management property; the applicant is expected to prevent the establishment or spread of noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: No Impact

There should be no deterioration of air quality due to increased air pollutants from this proposed project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: No Impact

Historical and archeological sites on federal land will be addressed by the federal agency.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No Impact

There should be no significant impacts on other environmental resources of land, energy or water from this proposed use.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: No Impact

The proposed project is not inconsistent with any locally adopted environmental plans and goals for Jefferson County

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: No Impact

This project should have no impact on recreational or wilderness activities.

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: No Impact

There should be no significant impact on human health from the proposed use.

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*

Yes___ No_X__ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No Impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact*
- (b) Local and state tax base and tax revenues? No significant impact*
- (c) Existing land uses? No significant impact*
- (d) Quantity and distribution of employment? No significant impact*
- (e) Distribution and density of population and housing? No significant impact*
- (f) Demands for government services? No significant impact*
- (g) Industrial and commercial activity? No significant impact*
- (h) Utilities? No significant impact*
- (i) Transportation? No significant impact*
- (j) Safety? No significant impact*
- (k) Other appropriate social and economic circumstances? No significant impact*

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts None identified

Cumulative Impacts None identified

3. ***Describe any mitigation/stipulation measures:*** The applicant would be required to cease diverting water if a call is made by a senior water user.
4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The proposed activity is reasonable, and is within accepted practices for stock water use. A no action alternative would mean that the applicant could not move the bulk of their stock off the direct from source water.

PART III. Conclusion

1. ***Preferred Alternative To*** authorize the change to an existing non-irrigation water right.

2 ***Comments and Responses***

3. ***Finding:***
Yes___ No_X__ Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

Name of person(s) responsible for preparation of EA:

Name: Kristeen Wofford

Title: Water Resource Specialist

Date: August 24, 2021